REMARKS/ARGUMENTS

Claims 1-11 and 18-33 are pending in this Application.

Claims 1, 18, and 29 have been amended. Claims 1-11 and 18-33 remain pending in the Application after entry of this Amendment. No new matter has been entered.

In the Office Action, claims 1, 4-7, 10, 11, 18, 21-24, 27-29, 32 and 33 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,706,097 to Schelling et al. (hereinafter "Schelling"), in view of Young-II Choi et al. [NPL entitled "An Integrated Data Model and a Query Language for Content-Based Retrieval of Video] (hereinafter "Choi"), and in further view of U.S. Patent No. 5,485,554 to Lowitz et al. (hereinafter Lowitz).

Claims 2, 3, 19, and 20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schelling, in view of Choi, in further view of Lowitz, and in further view of U.S. Patent No. 6,055,542 to Neilsen et al. (hereinafter "Neilsen").

Claims 8, 9, 25, 26, and 31 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Schelling, in view of Choi, in further view of Lowitz, and in further view of U.S. Patent No. 6,098,082 to Gibbon et al. (hereinafter "Gibbon").

Claim Rejections under 35 U.S.C. § 103(a)

Applicants respectfully traverse the rejections and request reconsideration and withdrawal of the rejections based on Schelling, Choi, Lowitz, Neilsen, and Gibbon. The Examiner makes the allegation that the combination of references teach or disclose all of the claimed limitations of the corresponding claims and that one having ordinary skill in that art at the time of the invention would have been motivated to incorporate the teachings of Schelling and Choi with the teachings of Lowitz, Neilsen, and Gibbon.

Applicants respectfully submit that the Examiner has not established a prima facie case of obviousness in the Office Action. In order to establish a prima facie showing of obviousness, three requirements must be satisfied: all limitations of a pending claim must be expressly or impliedly disclosed by prior art references; there must be a suggestion or motivation

in the art for the ordinarily skilled artisan to combine the limitations; and there must be a reasonable expectation of success in making such a combination. (M.P.E.P. § 2143).

Applicants submit that Schelling, Choi, and Lowitz, either individually or in combination, fail to teach or suggest each and every one of the claimed limitations recited in each of the corresponding claims. Applicants further submit that Neilsen and Gibbon, either individually or in combination, fail to cure any of the deficiencies of Schelling, Choi, and Lowitz.

Claim 1

Claim 1 recites a computer-implemented method of generating a paper document for a electronically stored multimedia document storing multimedia information, the multimedia information including video information. As recited in claim 1, the method includes accepting user input identifying a first concept of interest. The multimedia information stored by the multimedia document in claim 1 is analyzed to identify, absent direct human interaction, information relevant to the first concept of interest. As recited in claim 1, the multimedia information is printed on a paper medium to generate the paper document comprising one or more printed pages. As further recited in claim 1, information that is identified to be relevant to the first concept of interest is annotated when printed on the one or more pages.

Applicants submit that Schelling, Choi, and Lowitz, either individually or in combination, fail to teach or suggest the above features as recited in claim 1. For example, Applicants submit that Schelling, Choi, and Lowitz, either individually or in combination, fail to teach or suggest the feature of "analyzing the multimedia information stored by the multimedia document to identify, absent direct human interaction, information relevant to the first concept of interest" as recited in claim 1.

The Office Action relies on Schelling for allegedly showing "generating a paper document for a multimedia document." Applicants submit that Schelling does not teach or suggest analyzing multimedia information stored by the multimedia document to identify information relevant to the first concept of interest absent direct human interaction as recited in claim 1. In Schelling, a user personally selects a still image or a frame from a video sequence

and creates a thumbnail for the still image or frame to be included in the index image. (Schelling: Col. 3, lines 7-9). For an audio recording, the operator provides a text message instead of a thumbnail image to be included in the index image. (Schelling: Col. 2, lines 64-67 and Col. 3, line 18-20). Personally selecting desired still images or frames from a video sequence in Schelling has nothing to does not necessarily teach or suggest analyzing multimedia information stored by a multimedia document to identify information relevant to first concept of interest absent direct human interaction as recited in claim 1. Furthermore, providing a text message instead of a thumbnail image in Schelling does not necessarily teach or suggest analyzing multimedia information stored by a multimedia document to identify information relevant to first concept of interest absent direct human interaction as recited in claim 1.

Further, Applicants submit that Choi does not cure the above-described deficiencies of Schelling. The Office Action states that Schelling does not teach or suggest "accepting user input identifying a first concept of interest" as recited in claim 1. Choi was cited in the Office Action for allegedly showing "user input of keywords to identify a concept of interest, which has to be analyzed by the system to identify information that is relevant to the concept of interest of the user." (Office Action dated March 23, 2006: Page 2, 3rd paragraph; Page 3, 1st full paragraph; and Page 4, 1st full paragraph).

Applicants submit that even if Choi teaches "user input of keywords to identify a concept of interest, which has to be analyzed by the system to identify information that is relevant to the concept of interest of the user" as alleged in the Office Action, Choi still does not teach or suggest the feature of "analyzing the multimedia information stored by the multimedia document, absent direct human interaction, to identify information relevant to the identified first concept of interest" as recited in claim 1.

Applicants agree with the Office Action that the keywords specified in the queries of Choi must be analyzed by the system to identify video clips requested by the user. However, the analyzing of keywords in Choi does not teach or suggest analyzing multimedia information as recited in claim 1. Section 4.1 "Syntax of the Proposed Video Query Language" of Choi discloses a proposed video query language where a user specifies the type of results the user wants to retrieve (i.e., the FIND clause) from any video in a database (i.e., the FROM clause)

given certain qualifications (i.e., the WHERE clause). Section 4.3 "Query Processing" of Choi then discloses that the processing of queries is equivalent to converting queries that are expressed with the proposed video language into the query language provided by commercial database systems. For example, the FROM clause provide searching "Event E, E.has-videoclip C" as expressed in the Object Query Language (OQL) to return a video clip identifier (e.g., "C.of-video.id"). (Choi: Page 197-198). In other words, Choi discloses analyzing the keywords in queries submitted by users to convert the queries into query languages, such as SQL, used by commercial database systems. The analyzing of keywords to convert queries into queries of commercial database systems in Choi is substantially different from analyzing multimedia information as recited in claim 1. The keywords in the queries in Choi are not multimedia information as recited in claim 1.

Applicants also submit that the processed queries themselves in Choi are analyzed or processed by the commercial database systems to retrieve video clips. However, the processing of queries to retrieve video clips from a database in Choi also does not teach or suggest analyzing multimedia information as recited in claim 1. Section 3 "Video Data Model" of Choi discloses a video model that includes keywords associated with video content. In Choi, a "video clip" is an arbitrary video segment at which a meaningful scene is described. An "Event" in Choi, such as the "Event E" discussed above, expresses the content of the meaningful scene. (Choi: FIG. 1, Event which may be shared among Video Clips) Information about who, when, where, and what are described as attributes in the "Event." (Choi: Page 193, 3-Video Data Model, last paragraph). These attributes of the Event E in Choi are stored in the commercial database systems, and are matched to keywords in user submitted queries. Thus, Applicants submit that attributes associated with video clips in an "Event" are analyzed in Choi to determine whether a particular video clip is to be returned to the user. FIG. 1 of Choi clearly shows the separation between "Events" and the raw video in the video model of Choi. Therefore, the attributes of the events are also not multimedia information as recited in claim 1.

Therefore, Choi does not teach or suggest analyzing the multimedia information stored by the multimedia document, absent direct human interaction, to identify information relevant to the identified first concept of interest" as recited in claim 1. Instead, Choi merely

discloses analyzing keywords in user submitted queries to process the queries, and the analyzing of processed queries in commercial database systems to return video clip IDs.

Moreover, Applicants further submit that Lowtiz does not cure the above-described deficiency of Choi. The Office Action states that Schelling and Choi do not teach or suggest that information that is identified to be relevant to the first concept of interest is annotated when printed on a page. Therefore, Lowtiz is relied upon by in the Office Action for its teaching of allegedly showing annotating information when printing on a page. (Office Action dated March 23, 2006: Page 4, 1st full paragraph). However, Lowitz does not teach or suggest analyzing multimedia information stored by the multimedia document to identify, absent direct human interaction, information relevant to the first concept of interest as recited in claim 1.

In Lowitz, just as Schelling, a user selects a portion of a frame of an input video data stream as printable image data. (Lowitz: Col. 2, lines 50-56). Selecting a portion of a frame of an input video as in Lowtiz does not teach or suggest analyzing multimedia information stored by a multimedia document to identify, absent direct human interaction, information relevant to the user input specified first concept of interest as recited in claim 1. Additionally, Lowitz discloses that the sequence trigger setup key can be used to initiate an action, such as grabbing/printing a frame and grabbing/printing a sequence of frames. (Lowitz: Col. 5, lines 5-7). Applicants submit that grabbing/printing of a frame and sequence of frame in Lowtiz is not the same as analyzing multimedia information as recited in claim 1. Lowitz merely selects a frame or sequence of frames as specified by the user no matter what the relevancy of the frame or frame sequence.

In light of the above, Applicants submit that Choi and Lowitz do not cure the above-described deficiency of Choi. Even if Schelling, Choi, and Lowitz were combined as suggested in the Office Action (although there appears to be no motivation in the references for the combination), the resultant combination would not teach or suggest at least the feature of "analyzing the multimedia information stored by the multimedia document to identify, absent direct human interaction, information relevant to the first concept of interest" as recited in claim

1. Applicants further submit that the combination of Schelling, Choi, and Lowitz fail to teach or suggest at least other claimed limitations of claim 1, as discussed in previous responses.

Claims 2-11 and 18-33

Applicants submit that independent claims 18 and 29 are allowable for at least a similar rationale as discussed above for the allowability of claim 1. Applicants submit that dependent claims 2-11, 19-28, and 30-33 that depend directly and/or indirectly from the independent claims 1, 18, and 29 respectively, are also allowable for at least a similar rationale as discussed above for the allowability of the independent claims. Applicants further submit that the dependent claims recite additional features that make the dependent claims allowable for additional reasons.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance and an action to that end is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

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